

# METEOROLOGY FOR FEBRUARY, 1871.

PRIVATE OBSERVATORY, HOBART TOWN.

Day of Month.	Bar. 37 feet abv. sea level corrected & reduced.		Self-Registering Thermometers.				Wind.		Rain in inches.
	Highest.	Lowest.	Highest in shade.	Lowest in shade.	Highest in sun.	Lowest on grass.	Direction from three daily re- gisters.	Force in lbs. per square foot.	
	In.	In.	°	°	°	°			
1	30·015	29·952	69	47	109·0	45·0	NW SE	1·04	0·15
2	30·034	29·839	79	48	120·0	46·0	NW SE	1·04	
3	30·052	29·938	71	54	101·0	51·5	NW WSE	1·30	0·41
4	30·148	30·107	68	52	108·0	51·0	SW SE	1·30	
5	30·071	29·970	76	55	119·5	50·0	N SE	1·04	0·15
6	30·009	29·889	80	49	116·0	46·5	NW SE	1·04	
7	29·687	29·298	72	60	73·0	58·0	NW	·26	0·41
8	29·795	29·312	70	56	94·0	48·5	NW SW SE	2·86	
9	30·065	30·057	67	47	90·0	46·0	NW SE	·52	0·3
10	30·014	29·852	78	47	114·0	44·5	NW SE	1·30	
11	29·879	29·852	75	49	112·0	46·5	NW	1·30	0·20
12	29·974	29·897	76	50	113·0	46·5	NW SE	·78	
13	29·821	29·535	83	54	118·0	51·5	NW SE	·26	0·20
14	29·501	29·417	79	52	112·5	40·0	NW	5·72	
15	29·868	29·734	69	48	100·0	46·0	NW SE NW	1·04	0·18
16	30·063	30·010	69	51	108·0	47·5	SE	1·04	
17	30·055	30·029	75	53	113·0	48·5	NW SE S	1·04	0·18
18	30·098	29·931	79	53	98·0	51·5	NW NE	2·60	
19	29·787	29·525	86	52	120·0	52·5	NW	10·68	0·18
20	29·854	29·662	75	57	114·0	48·0	NW SW NW	·78	
21	30·156	30·129	75	52	113·5	50·0	NW SE	1·30	0·33
22	30·087	29·851	78	47	114·0	45·0	NW ENE	·52	
23	29·779	29·709	80	50	118·0	47·5	NW SE	1·04	0·33
24	29·797	29·769	79	60	117·0	55·0	NE SE	1·04	
25	29·980	29·860	72	57	73·0	56·5	SW SE	1·30	0·33
26	30·126	30·099	60	52	64·5	50·0	SE E	0·	
27	30·026	29·839	76	54	110·0	50·5	NW	1·30	0·05
28	29·774	29·582	82	50	112·0	49·5	NW SE E	·52	
Mean monthly 29·879			64·56		106·25	49·23	Total Force	.. 43·96	1·35

The mean in all cases is taken from the sums of the three daily registers, and not from the maximum and minimum.  
The direction of the wind is registered from currents moving at a height of 192 feet and the force according to Lind's Wind Gauge. The supposition, however, of a uniform velocity during the month is a very arbitrary one, and the results can be considered only approximately correct.  
The relations of the quantities of rain which fell under the different winds are registered each evening at sundown.  
The 25 years' standard tables are used for obtaining the difference from the average.

*Leafing, Flowering, and Fruiting of a few Standard Plants in the Royal Society's Gardens during the month.*

6th—Kerry pippin apple commencing to ripen.

8th—Windsor pear ditto.

15th—Bon Chretien pear commencing to ripen.  
 16th—Green gage plum ditto.  
 25th—Common ash commencing to shed seed.  
 26th—Sycamore ditto.

Barometer mean, 29·819in., being 0·036in. below the average.  
 Temperature mean, 64·56°, being 4·80° above the average.  
 Solar intensity mean, 106·25°, being 2·96° above the average.  
 Dew point mean, 51·2°, being 1·98 above the average.  
 Humidity of air mean, '65, being '06 per cent. below the average.  
 Elastic force of vapour mean, '390, being '034 above the average.  
 Total amount of rain, 1·35in., being 0·32in. below the average.  
 Increase of spontaneous evaporation on rain fall, 2·87in.  
 Mean amount of ozone, 5·08, being '193 of chromatic scale below the average.  
 Electricity active on the 5th, 8th, 9th, 10th, 11th, 14th, 15th, and 20th.  
 Hot wind on the 19th. Thunder and rain on the 28th.

FRANCIS ABBOTT.

## NOTES ON THE METEOROLOGY AND MORTALITY OF THE MONTH OF FEBRUARY, 1871.

By DR. E. SWARBRECK HALL.

The atmospherical phenomena of the month varied considerably from the 25 years' adopted standard mean for February, but were not on the whole unfavourable to health and life. The deaths were twelve less in number than the average of the previous 14 years, and six less than February, 1870, had.

*Atmospheric pressure* mean, 29·879, was  $\times$  '048 only above the mean. The greatest pressure on any day was, 30·156, on the 21st; and the lowest was, 29·298, on the 7th. The month's range therefore was only '858, being less than in any February since 1863. The greatest movement of the barometer in any 24 hours was a fall of — '448 on the 7th, which was not unusual in any respect. There were, however, 10 other days on which the variations exceeded one-fifth of an inch.

*Wind-force* in the aggregate amounted to 43·96 lbs., being — 13·14 less than the February average. *North-west* winds predominated over all others, both in frequency and force, and were greatly in excess of the February mean. On the other hand *north* wind was only noted once, and without force (a calm); while the February average is 14·11 in number, 8·21 in force. *South-east* winds were considerably more numerous than usual, but a trifle below the average force. The strongest winds, 5·21 lbs. in force, were noted twice on the 19th, and were north-west *hot winds*. *Calms* were + 5·33 above the February mean.

*Temperature* mean, 64·56, was + 2·68 degrees above the 25 years' mean, only 1866 and 1855, during the past 30 years, had higher means, *i.e.*, 65·19 and 68·00 respectively. Maximum, 86, was noted on the 19th. It has often been exceeded. Minimum, 47, was recorded four times, being the highest, with the exceptions of 1866, 1845, 1843, 1841, in the previous 30 years. The *wet-bulb* thermometer mean, 57·45, was + 1·74 above the mean.

*Daily-range of Temperature* mean, 22·93 degrees, was + 3·18 above the average. It was never so high since 1859, when it was 23·17, and only in three other years of the 30 had February a higher daily-range than the present month, *i.e.*, 1857, 1856, 1841. The greatest range on any day was 34 degrees on the 19th, and that has often been exceeded in former years.

*Solar intensity* mean, 106·25 degrees, was — 1·62 below the average. The greatest on any day was 120, recorded on the 2nd and 19th, and the lowest since 1861. It is remarkable that the sun's heat should be so low while mean shade temperature was so high, more especially as the cloud mean was below the average.

*Terrestrial radiation* mean, 49·23, was only — '34 below the average. The lowest in any night was 44·5 on the 10th. In every year recorded, except 1866, when it was the same, the minima have been much lower.

*Elastic force of Vapour*, 390, was + 16 above the average. It ranged

from maximum 585 at noon on the 7th, to minimum 260 on the evening of the 14th.

*Humidity* mean, 65, was — 5 below the average.

*Rain-fall* amounted to 1·35 inches, being — ·34 below the average. It fell on 7 days, being — 0·73 below the mean. It descended copiously on the 7th and 25th, so as to scour surface drains and flush sewers and water-courses efficiently. *Snow* was never visible on Mount Wellington during the month.

*Spontaneous Evaporation* amounted to 4·22 inches, being three times more than rain fall.

*Cloud* mean was 5·08, being — ·62 below the average.

*Ozone* mean was only 5·61, being — 1·40 below the average, and the lowest ever registered for the month of February.

The *Electricity* records were :—21 positive with tension ranging from 2·5 to 6; and 32 negative, ranging from 1 to 6, and 3 “nils.” A short storm of *thunder, lightning*, and rain occurred on the last day of the month.

The month's *Deaths* amounted to 42, being — 12 less than the average of the previous 14 years, and — 6 less than 1870 had. Under one year of age the deaths were 12, being — 2 less than 1870 had. At 1 to 5 years old the deaths were 7, being + 3 more than in 1870. At 5 to 10 there were no deaths, while 1870 had 2. At 10 to 15 no deaths occurred, though 1870 had 2. At 15 to 20 there were 2 deaths, while 1870 had none. From 20 to 60 the deaths were 10, while 1870 had 13. At 60 and all ages above, the oldest being 87, there were 11 deaths, while 1870 had 13, the oldest being 82. *Zymotic* diseases caused 10 deaths, all from *Diarrhoea* and *Dysentery*, the prevalent diseases always at this season of the year. There were 4 *Inquests*. At the *Brickfields Invalid Establishment* there were 2 deaths; at the *Cascades* 3. The *Hospital* had 6 deaths, two of them from other registration districts. *Pulmonary Consumption* caused 2 deaths, one being a native of England, the other of Ireland.